iota

The Internet of Things

Critical Access Company

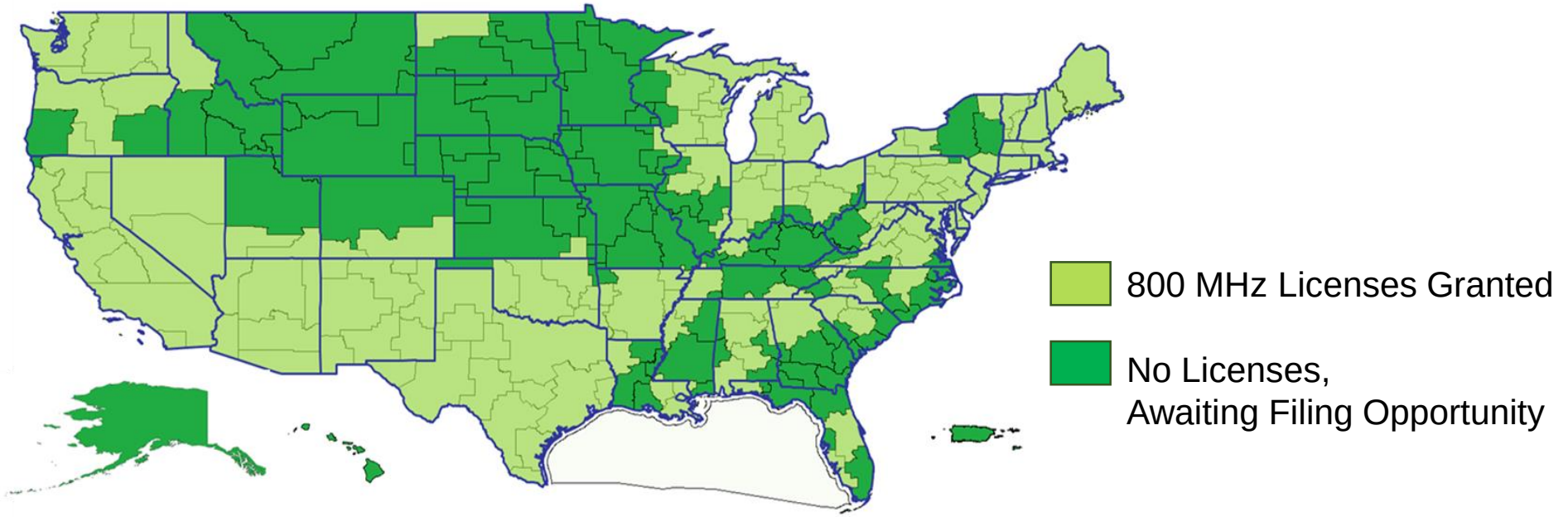
M2M Spectrum Networks will soon be iota

- **First to bring cellular-like advantages to IoT connectivity without cellular's distinct disadvantages:**
  - Far lower costs for network and customer device equipment
  - Lower power operation allows 5-10 year battery-enabled devices
  - Much faster network and customer deployment and much lower network operating costs

- **Focus on creating the network and app platform, as well as in-house applications for high-value verticals**
  - Standard and open hardware specifications and software platform, allowing massive third-party manufacturing and app development
  - Unique applications for key verticals such as healthcare, asset location, and smart city; all with blue-chip initial customers

- **Veteran wireless network management team whose founder has 30+ years in the business**

Spectrum Holdings

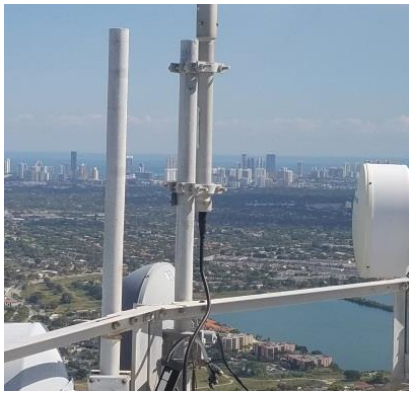


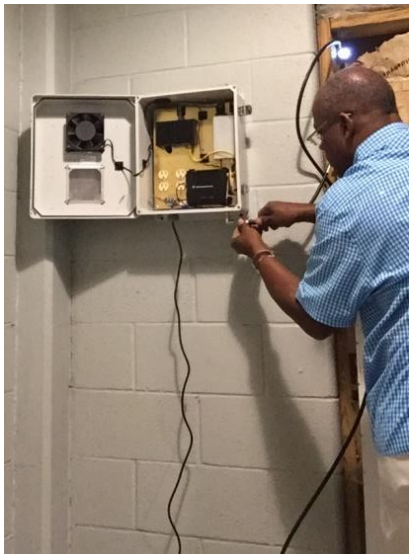
- Rural Footprint
- Covered areas the same since our last FCC meeting (Nov 2015)
- We have proven that our services can add great value to the lives and businesses of the American people
- Addition of urban areas will greatly reduce costs and pricing for all customers
- **We would appreciate the opportunity to apply for 800 MHz SMR category licenses in all remaining markets in a fair, competitive proceeding that does not give priority to incumbents**

Spectrum Utilization

We have proven that we are committed, responsible spectrum operators:

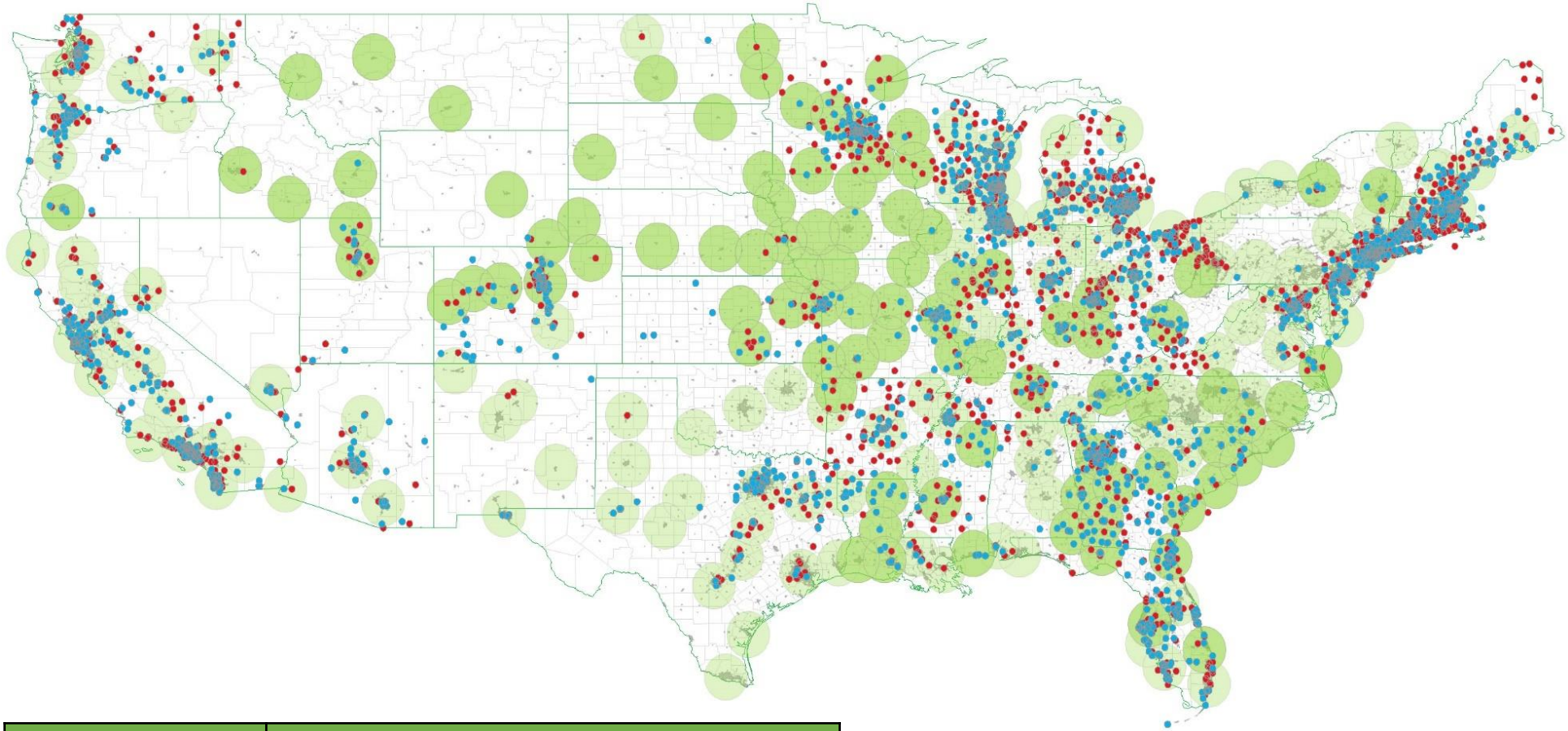
- ✓ We operate 800 MHz SMR frequencies within 77 EA Markets
- ✓ We have constructed every license on time
  - **Site, Equipment, Construction, and Development investment to date**: **$23.2 million**
- ✓ We currently lease 223 tower sites, primarily from Crown Castle and American Tower
- ✓ We provide high value Internet of Things connectivity





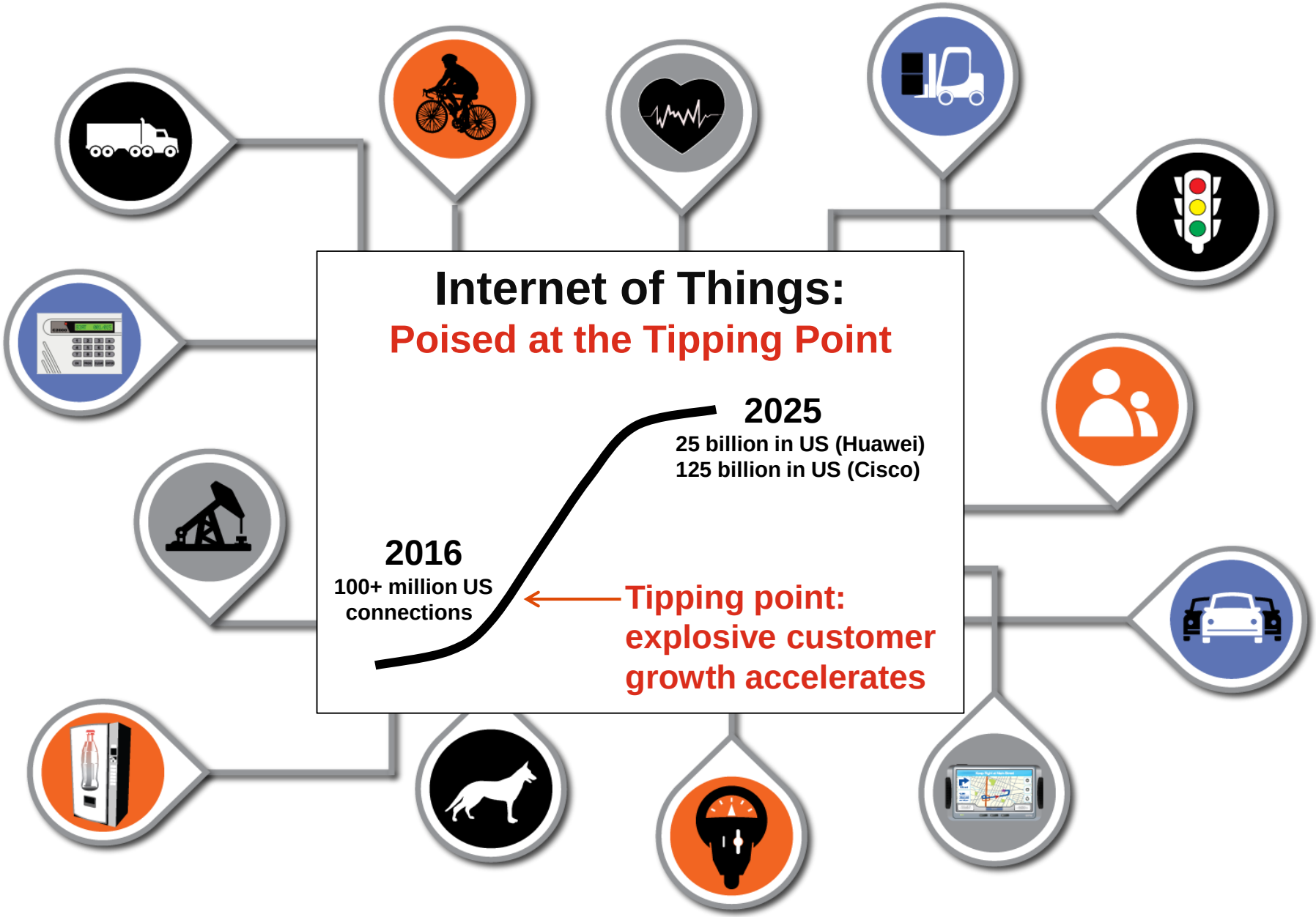
Access to Immediate Nationwide Footprint

4,050 Sites Cover Over 95% of US Population

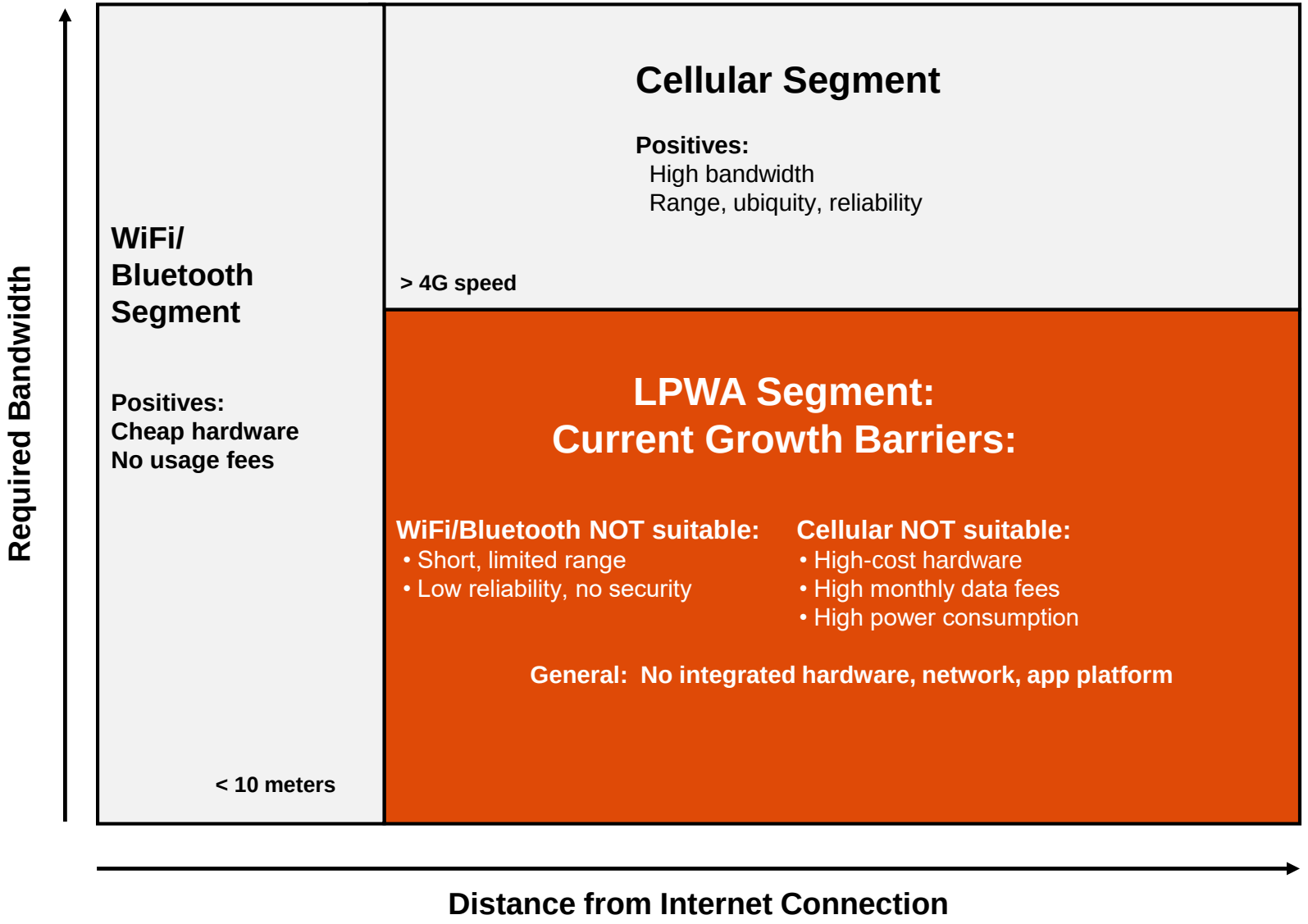


Green Circles	Current M2M sites (225)
Blue	Rooftop locations (1825)
Red	Tower locations (2000)

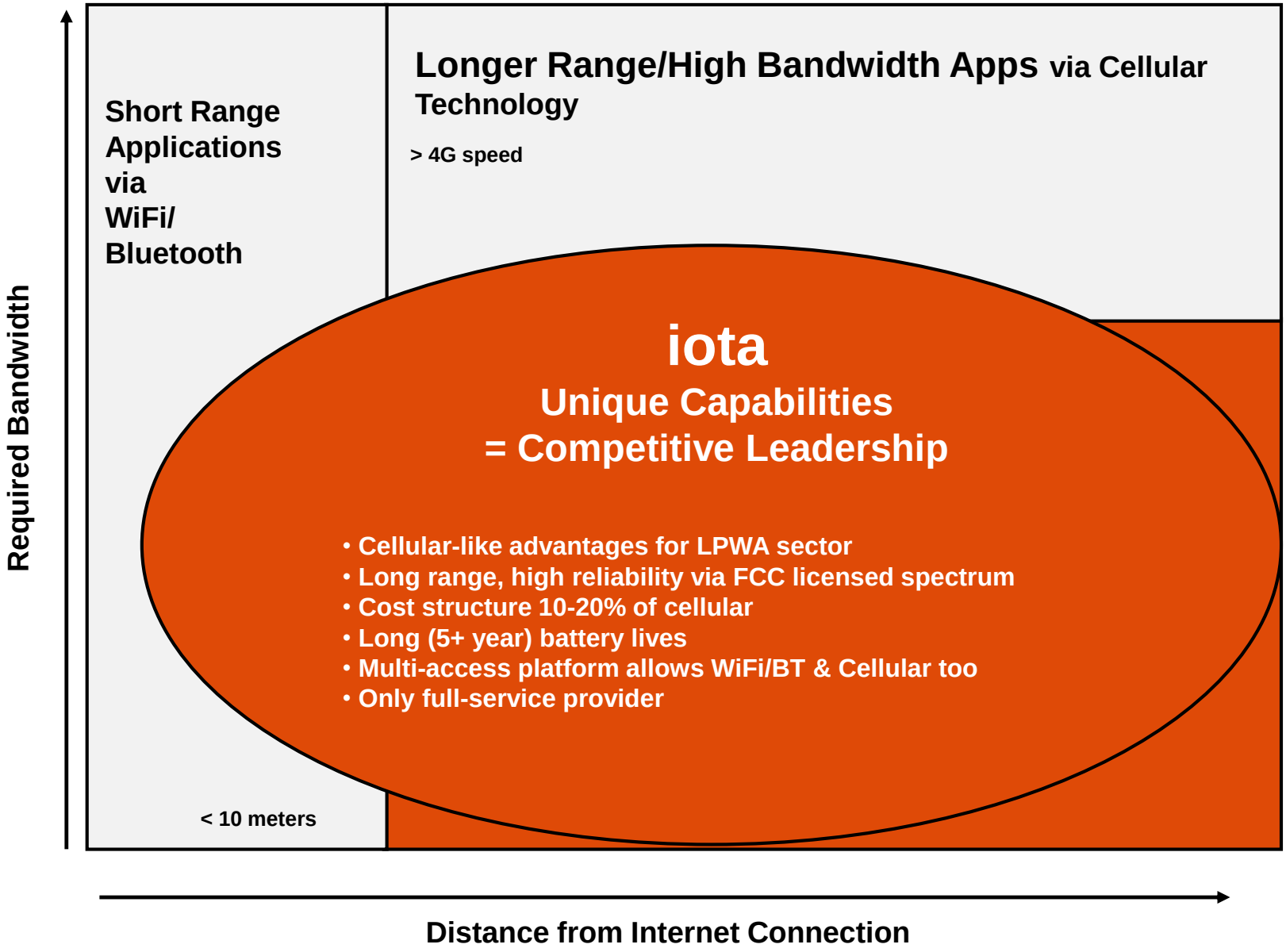
The Internet of Things – Explosive Growth



The IoT: Current Barriers in Low Power/Wide Area Segment



Breaking “Last Mile” Barriers



Iota was an early leader of the LoRa Association

- LoRa = equivalent of LTE for Low-Power Wide-Area IoT

- Two key advantages over LTE
  - Multi-year battery life for devices
  - Ultra low cost

- Becoming a global standard:
  - Lora networks are now live in 50+ countries
    - Korea: SK Telecom completes nationwide LoRa network (2016)
    - Netherlands: KPN completes nationwide LoRa network (2016)
    - France: Orange covers 18 urban areas with its LoRa network

IoT Services Offered: GeoTracking

- ✓ Real Time Location
- ✓ Historical Route Data
- ✓ Driver Behavior
- ✓ Loss Prevention
- ✓ Route Optimization
- ✓ Geo-Fencing

GROVR™

GROVR sniffs out any vehicle.

FedEx Ground

CUSTOMER SPOTLIGHT

“M2M Spectrum Networks completely nailed it.”

- Greg Kay, Fed Ex Ground

- ✓ Providing low cost GeoTracking services to FedEx Ground operators
- ✓ Turnkey Hardware, connectivity & software service
- ✓ Pricing to FedEx can be reduced further by nationwide capabilities

IoT Services Offered: Micro Tracking

- ✓ Extremely Small Tags
- ✓ Low Cost
- ✓ Does Not Use IT Network
- ✓ 2 - 5 Year Tag Battery Life
- ✓ Track Assets and People

AirFinder

Small Asset Location System

CUSTOMER SPOTLIGHT

GEO

The GEO Group, Inc.®

- Correctional Facility Management
- Real-time location of inmates and employees
- Geofencing for Escape Prevention
- Inmate Behavioral Analytics
- Location-based classroom attendance reports

IoT Services Offered: Smart City

- ✓ Waste Management
- ✓ Meter Reading
- ✓ Traffic Counting
- ✓ Asset Location
- ✓ Leak Detection
- ✓ Smart Parking

MPOWERED
Smart, IoT-Friendly Town
BY M2M SPECTRUM NETWORKS

- ✓ City Bus Monitoring
- ✓ Emergency Responders
- ✓ Gunshot Detection
- ✓ Street Lights
- ✓ Municipal Employees
- ✓ Lock Down Control

CUSTOMER SPOTLIGHT

Marion Utilities

- Waste Management
- Geolocation
- Meter Reading
- Municipal Vehicle Tracking

"The system is working well. The mapping system allows our office to see the trucks' paths and analyze ways trash pick up can be more efficient."

– Chuck Binkerd, Director, Marion Utilities

A Fair, Competitive Filing Process

- We humbly request that licensing process continue in a fair, unbiased manner with no special treatment or favors granted to incumbents in the Guard and Expansion Bands.

- We support the statement made in the NPRM: “Unlike B/ILT licensees, SMR licensees compete for customers in the commercial wireless marketplace. Therefore, both incumbents and new licensees have similar economic motives to utilize the spectrum in a timely manner, and new entrants may have an even greater interest in deploying new or innovative services. On this basis, we do not believe that incumbents should be given priority over new entrants for these channels.”

- Further, WT Docket 02-55 determined that the Interleaved spectrum would be sufficient for expanding the existing systems of incumbents. **Incumbents have had the exclusive right to file license applications for the 5MHz of spectrum in the Interleaved Band for 5 years.**

Thank You

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